

# ASPB MIDWESTERN SECTION NEWSLETTER



States included: IA, IL, IN, KS, KY, MI, MN, MO, ND, NE, OH, OK, SD, WV, WI Canada - MB, ON

## Annual Midwest Section Meeting Postponed

Due to the continued impact of the coronavirus on travel, the 2021 Midwest ASPB Section Meeting is being postponed. The leadership team is currently investigating our options for an alternative date. We will communicate with the membership the plans as soon as possible.

Looking forward to when we do meet, the 2021 Midwest ASPB Meeting will continue our tradition of presenting, discussing, and celebrating research pursuits from all areas of plant science at the University of Illinois at Urbana-Champaign. The topics presented at the meeting are intentionally varied in subject to encompass a diverse group of scientists who work with plants and agricultural systems, or in a number of related disciplines including soil science, engineering, genomics, and computer science. Scientists from all career stages and diverse positions are invited to attend and encouraged to showcase their research through poster and oral presentations. In particular, the meeting provides early career researchers, including undergraduate and graduate students as well as postdoctoral associates, the opportunity to present their plant-related research efforts in oral and poster formats. Prizes will be awarded for outstanding student oral and poster presentations.

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Remember when Louisville's Forward Radio *Bench Talk: The Week in Science* came to the Midwest Annual meeting in 2019? Catch up with the techniques, cool research, and overall highlights from the 2019 meeting by listening to the archived shows here:

<https://soundcloud.com/wfmp-forward-radio/bench-talk-the-week-in-science-today-in-plant-biology-mwaspb-conference-july-15-2019?in=wfmp-forward-radio/sets/bench-talk-the-week-in-science>

<https://soundcloud.com/wfmp-forward-radio/bench-talk-the-week-in-science-mwaspb-part-2-steam-fireflies-climate-change-july-22-2019?in=wfmp-forward-radio/sets/bench-talk-the-week-in-science>

## Five Questions with Midwest Section member...

**Jennifer Robison:** Jennifer is an Assistant Professor at Manchester University in North Manchester, Indiana.

### 1) What is your favorite thing about living and working in the Midwest?

The Midwest has a lot of opportunities for a plant biologist. With the importance of the Midwest to agriculture it is easy to get people to understand why what you do is important.

### 2) What has been the benefit to you of belonging to the Midwest section of ASPB?

I have been a member of ASPB and the Midwest section since I started my PhD. This section has been so instrumental in getting me through my PhD and helping me as a new PI. The Midwest hospitality really shines in this section. Everyone is friendly and helpful, we are not in competition with each other but looking to lift each other up. My support network is full of Midwest members who I am eternally grateful for.

### 3) What projects are you excited about working on in the future?

This is only my third year at Manchester University and my lab is still finding its footing. Currently we have three main research projects, all of which involve abiotic stressors. One nice thing is the ability to continue my PhD research into the cold responsiveness in soybean. My lab is looking at both photosynthetic responses and attempting to clone a few genes to evaluate their role in cold stress. In addition to cold response, we have started looking at the timing of local and systemic responses to wound stimuli in soybean. The most recent project in the lab is a revival of a project I worked on during my undergraduate to identify important environmental cues in garlic mustard across the United States.

Outside of my lab, I have found a passion for creating new learning opportunities for my students in the classroom. I recently published a paper on incorporating multicultural content into a laboratory course. Currently, I am collecting data on the effectiveness of two different tools to help students engage with course content.



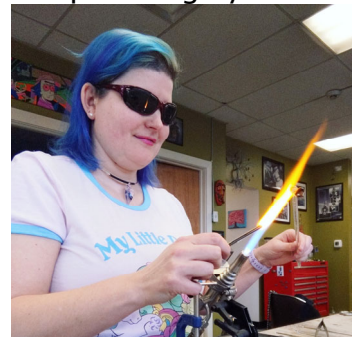
*"My support network is full of Midwest members who I am eternally grateful for."*

### 4) What is your favorite/most unique part about your job?

Working at a PUI (primarily undergraduate institution) has been rewarding and challenging. My teaching load is higher than my colleagues at larger institutions, but my class sizes are smaller! This lets me get to know my students. Manchester University is small (1,100 student body) and after three years here I know every science major by name, I know what they want to do after they graduate, and they know I'm here to support them. Having students drop in, or even stop when they see me on campus, just to talk to me is my favorite part of this job.

### 5) What's your favorite non-science activity and why?

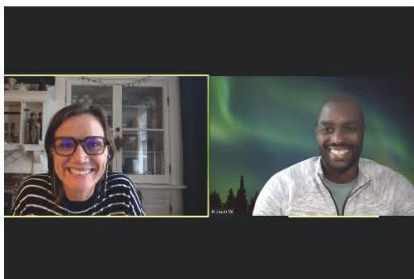
I have found a love for glassblowing! I started taking lessons just over a year ago and it became my new obsession. Working with the glass in the flame is the best mindfulness activity of all time. All I can think about is what that rod of glass is going to become as I melt and shape it. Highly recommend!





## The PALM Network Grant

Why limit mentoring to research? PALM supports mentoring in teaching. Develop your abilities to teach lecture courses using active learning by working with an experienced active learning instructor. Receive up to \$2000 per Fellow / \$500 mentor stipend / \$1000 meeting travel each for Fellow and mentor.



“The PALM Network allows faculty with similar pedagogical goals to connect and strengthen relationships around a shared goal. The integration and assessment of active learning in the classroom is facilitated by the mentor-mentee relationship and the support of the PALM leadership.”

—Kristen Frenzel,  
Emory University

“Regular check-ins with an experienced active learning mentor enables better selection and efficient implementation of course-appropriate active learning strategies.”

—Alonzo Whyte,  
Georgia Institute of Technology

### As a PALM Fellow, you will:

- Improve your teaching with feedback and mentorship from experienced active learning instructors
- Learn various strategies for teaching lecture courses more effectively using active learning
- Create ready-to-use instructional materials based on research on learning
- Discuss key findings from education research that have immediate application in the classroom through online journal clubs and in-person meetings
- Become part of a nationwide community of scientists dedicated to effective teaching
- Network within and across scientific societies that support scientists in teaching and learning careers

### Apply to be a PALM Fellow



For more information, including eligibility requirements, application details, and to learn about how to be paired with a mentor if you don't have one in mind, visit

[palmnetwork.org](http://palmnetwork.org)

**2021 Deadlines: Jan. 30, April 30, July 30, and Oct. 30**



PALM is funded by NSF Research Coordination Network in Undergraduate Biology Education grant #1624200.

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## Two Graduate Positions Available in Plant Molecular Evolutionary Ecology

### Dr. Erika Hersch-Green's Lab at Michigan Technological University, Houghton MI

1 -2 PhD positions (or 1 PhD and 1 MS) are available in my lab at Michigan Technological University to join a multi-year NSF-funded project. In general, research in my lab seeks to understand the origin, maintenance, and changes of genetic, phenotypic and species diversity patterns and current projects are related to plant genome size evolution and ecology, species interactions (plant-herbivore-pathogen-pollinator-plant interactions), and invasive species biology.

The overall premise of this funded project is to examine whether and how nutrient availabilities, disturbances, and plant genome size together contribute to the structuring of terrestrial biodiversity patterns from the molecular and functional attributes of organisms to multispecies assemblages.

Students will primarily focus on either: (1) field based projects that incorporate phylogenetic modelling approaches to examine how changes in nutrient conditions, disturbance regimes, and species interactions affect functional traits and multispecies biodiversity patterns across sites that vary in multiple environmental factors, or (2) plant assemblages that vary in genome sizes and attributes to examine how resource availabilities and allocations influence genome, transcriptome, and metabolic properties of plants.

Student will also work with national and international teaching and research collaborators, be involved in teaching workshops/activities to enhance scientific teaching and communication skills, and be expected to develop complementary research projects.

Funding for these positions are provided (stipend and tuition).

Candidates must have prior research experience in plant ecology, evolutionary biology, and/or molecular ecology. Desired qualifications also include: an M.S. in related disciplines (if applying for a PhD), an excellent academic record, a good quantitative background (including statistics), and strong writing and computing skills. Other relevant skills including experience with flow cytometry, Li-Cor machines, transcriptome sequencing, and/or in community phylogenetic methods are highly favored.

**Interested candidates** should contact Dr. Erika Hersch-Green by email ([eherschg@mtu.edu](mailto:eherschg@mtu.edu)) and include a statement of research interest – clearly specifying which area of study of the 2 mentioned they are interested in and an updated CV. **Initial review of applicants will begin January 1<sup>st</sup>** and preferred candidates will be contacted for references and an interview. I anticipate students starting mid-May to early June (for field centered research) or mid-August (for molecular centered research).

Michigan Tech is located in Houghton, MI on the south shore of Lake Superior. Houghton was recently named one of the 100 best small towns in America and the area is known for its natural beauty, pleasant summers, abundant snowfall, and numerous all-season outdoor activities. The University maintains its downhill and cross-country ski facilities adjacent to campus and a nearby golf course. Numerous cultural activities and opportunities are available on campus and in the community.

Links for more information: Michigan Tech Home Page (<http://www.mtu.edu>); Michigan Tech Graduate School (<http://www.mtu.edu/gradschool>); Michigan Tech Department of Biological Sciences (<http://www.mtu.edu/biological/>); Michigan Tech Recreation (<http://www.mtu.edu/recreation>); Webcams (<http://www.mtu.edu/webcams>)

## Announcements

### ASPB SURF Applications now open!

The American Society of Plant Biologists (ASPB) Summer Undergraduate Research Fellowships (SURF) fund promising undergraduate students so they can conduct research in plant biology during the early part of their college careers. SURF recipients must present their research at ASPB's annual Plant Biology meeting in the year following the fellowship award. Successful applicants receive a \$4,000 summer stipend, membership in ASPB, and \$700 (paid to the mentor or institution) for materials and supplies. Each fellowship also provides a \$575 stipend to support student travel to Plant Biology 2022, the ASPB annual meeting, to be held July 9-13, 2022, in Portland. Application period ends on March 28, 2021. For more information, and to apply, visit:

<https://surf.aspb.org/>

### 2021 ASPB Awards Accepting Nominations

Nominations are now being accepted for the 2021 ASPB Awards. The deadline is February 19, 2021, so please submit your nominations as soon as possible.

<https://aspb.org/awards-funding/aspb-awards/>

### ASPB Ambassador Applications Now Open!

The ASPB Ambassador Program was established to involve scientists in communicating ASPB's mission to plant biologists and to the general public. The program provides opportunities for networking, leadership, and science communication. Apply by Feb 28.

<https://aspb.org/membership/membership-dues/aspb-ambassador-program/>

### An easy activity to increase multicultural content in courses published by Robison

Dr. Jennifer Robison, Manchester University, and colleagues at Indiana University-Purdue University Indianapolis recently published their student-generated mock magazine intervention in the Journal of Microbiology and Biology Education. Dr. Robison shared this work at the 2019 ASPB Annual Meeting and at the 2020 ASPB Worldwide Summit. The paper can be found at

<https://www.asmscience.org/content/journal/jmbe/10.1128/jmbe.v21i3.2233>

## Plant Biology 2021

The annual ASPB meeting will take place virtually July 17 – 21, 2021. Abstract and registration details coming soon. Sign up to be notified as soon as submissions open at <http://plantbiology.aspb.org/>

**Want to advertise a position, share some exciting news, or be featured in our next newsletter?**  
Please send items to Jennifer Robison no later than May 1, 2021: [JDRobison@manchester.edu](mailto:JDRobison@manchester.edu)